



UNITED STATES PATENT AND TRADEMARK OFFICE

6
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,003	01/18/2002	Patrick C. Marks	9319	7774

7590 04/04/2003

William W. Habelt
Carrier Corporation
P.O. Box 4800
Syracuse, NY 13221

[REDACTED] EXAMINER

NGUYEN, TU MINH

ART UNIT	PAPER NUMBER
----------	--------------

3748

DATE MAILED: 04/04/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/051,003	Applicant(s) Marks et al.
	Examiner Tu M. Nguyen	Art Unit 3748

M

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on Jan 27, 2003

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-12 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on Jan 18, 2002 is/are a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

4) Interview Summary (PTO-413) Paper No(s). _____

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

6) Other: _____

Art Unit: 3748

DETAILED ACTION

1. In view of an Applicant's Appeal Brief filed on January 27, 2003, PROSECUTION IS HEREBY REOPENED. A new non-final rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CAR 1.111 (if this Office Action is non-final) or a reply under 37 CAR 1.113 (if this Office Action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CAR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CAR 1.193(b)(2).

An Applicant's Amendment filed on November 25, 2002 has been entered. Claim 9 has been amended. Overall, claims 1-12 are pending in this application.

Art Unit: 3748

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Jessberger (U.S. Patent 6,494,290).

Re claim 1, as shown in Figures 2-4, in a system having a multi-speed engine with an air inlet line (1) connected to the engine, Jessberger discloses a Helmholtz resonator structure comprising:

- a closed chamber ((9) or (12)) configured as a single dead end side branch connected to the inlet line and defining a Helmholtz resonator continuously operatively connected to the inlet line via a restricted connection ((7) or (13)); and
- means ((10) or (14, 15)) for attenuating noise in a plurality of frequencies by changing the frequency response of the Helmholtz resonator responsive to changes in speed of the engine (also see Figures 5 and 6).

Art Unit: 3748

Re claims 5 and 9, as shown in Figures 2-4, Jessberger discloses a system having a multi-speed engine with an inlet line (1) connected to the engine, microprocessor means (not shown but inherently must have) for controlling the speed of the engine, the improvement comprising:

- a closed chamber ((9) or (12)) configured as a single dead end side branch connected to the inlet line and defining a Helmholtz resonator continuously operatively connected to the inlet line via a restricted connection ((7) or (13)); and

- means ((10) or (14, 15)) for attenuating noise in a plurality of frequencies by changing the frequency response of the Helmholtz resonator responsive to changes in speed of the engine (also see Figures 5 and 6);

wherein means for changing the frequency includes a valve (10) having only an open and a closed position.

With regard to the preamble directed to "a refrigeration system", a preamble to a claim is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self contained description of the structure not depending for completeness upon the introductory clause. See *Kropa v. Robie*, *supra* at 480. See also *Ex parte Mott*, 190 USPQ 311, 313 (PTO Bd. of App. 1975). Clearly, the pending base claims 5 and 9 do not rely on the preamble for completeness.

Art Unit: 3748

Re claims 2, 6, and 10, as depicted in Figure 4, the means for changing the frequency response in the Helmholtz resonator of Jessberger includes means (14, 15) for effectively changing the volume of the closed chamber connected to the inlet line.

Re claims 3, 7, and 11, as depicted in Figure 4, the means for changing the frequency response in the Helmholtz resonator of Jessberger includes at least one restricted connection (13) which is selectively connected between the chamber and the inlet line.

Re claims 4, 8, and 12, as illustrated in Figure 4, the means for changing the frequency response in the Helmholtz resonator of Jessberger further includes means (14, 15) for effectively changing the volume of the closed chamber connected to the inlet line via the restricted connections (13).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jessberger as applied to claims 3, 7, and 11, respectively, above, in view of Bloomer (U.S. Patent 6,422,192).

Art Unit: 3748

In Jessberger, the means for effectively changing the volume of the closed chamber include a fixed wall (14) and an adjustable wall (15). Thus, Jessberger fails to disclose that the means for effectively changing the volume of the closed chamber is a flapper valve.

As illustrated in Figures 2 and 3, Bloomer teaches a Helmholtz resonator for an inlet line of an engine, that includes a closed chamber (30, 31) and a flapper valve (38) as a means for effectively changing the volume of the closed chamber (as shown in Figure 2, by closing neck (32) with flap valve (38), the volume of the closed chamber is the sum of volume (30) and volume (31); with the flapper valve open as depicted in Figure 3, however, the volume of the closed chamber is either volume (30) or volume (31)). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have replaced the two walls in Jessberger with the flapper valve taught by Bloomer, since the application thereof would have provided a means to change the volume of the closed chamber (12) in order to effectively attenuate noise in the intake line of the engine.

Response to Arguments

6. Applicant's arguments with respect to the references applied in the previous Office Action have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 3748

Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of two patents: McLean (U.S. Patent 5,771,851) and Schorn (U.S. Patent 5,957,102), each discloses a Helmholtz resonator in the intake path of an engine.

Communication

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tu Nguyen whose telephone number is (703) 308-2833.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas E. Denion, can be reached on (703) 308-2623. The fax phone number for this group is (703) 308-7763.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1148.

Tu M. Nguyen

TMN

Tu M. Nguyen

April 2, 2003

Patent Examiner

Art Unit 3748

Thom Den
THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700